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| Name of course: **Agricultural informatics** | **Credit value: 3** |
| **Course** **classification**: **compulsory** |
| **The proportion of the practical nature of the course, „educational character”: practical** |
| **Type of course: 15** theoretical / 30 practical, and the **total number: The 45 hours** in the given **semester.**Further (unique) means and properties of knowledge transfer: ---- |
| **Exam** type (colloquium / practical grade / **other** ):  **practical**Further (unique) means of knowledge verification**: -----** |
| The curricular **place of the course** (which semester): **1. semester** |
| Prerequisites (if any): **-**  |

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| **Course description: a brief, but informative description of the knowledge to be acquired (14 weeks).** |
| *Brief description:* During the training, students should acquire the IT and computer skills necessary to acquire the competences of the training programme. Be familiar with the basic theoretical concepts of database management, data models and modelling techniques. Acquire knowledge of Internet applications, GIS, spreadsheet and statistical modelling systems and information systems.*Contents of the subjects in 14 weeks:*1. Computer networks and Internet services.
2. Spreadsheet and modelling systems I.
3. Spreadsheet and modelling systems II.
4. Basic of Geographic Information Systems
5. Types of Geographic Information Systems
6. Areas of application and application possibilities
7. Practical exam I. (Excel and GIS)
8. Basic concepts and objects of database management
9. Relational databases required for building objects and their uses
10. Preparation of professional queries
11. Preparation of professional reports
12. Professional information systems
13. Conversion of data exported from professional information systems to Office programmes
14. Practical exam II. (databases)
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| **Required and recommended reading:** |
| **Required reading:*** Department teaching materials: Business informatics, electronic booklet 2017.
* Excel Functions, http://www.excelfunctions.net
* Access 2013 training courses, https://support.office.com/en-IN/ article/-a4bd10ea-d5f4-40c5-8b37-d254561f8bce
* MS Excel Topics, Tech on the Net, http://www.techonthenet.com/excel/index.php.
* The Basics of GIS - Geographic Information Systems/Science - Research Guides at Dartmouth College

**Recommended reading:*** R. Elmasri: Fundamentals of Database Systems, Pearson, 2016, ISBN: 9781292097619, pp. 1272
* Ullman, J.D., Widom J.: Adatbázisrendszerek, Alapvetés, Panem Kft., 2009, 9789635454815, pp. 600.
* Date, J. C.: An Introduction to Database Systems, Pearson, 2003, ISBN13 (EAN): 9780321197849, pp. 1024.
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| **Competencies to be acquired, related to the course:** |
| **a) Knowledge:** - It possesses the most basic information gathering, analysis, task, and problem solving methods.- They have competencies needed to plan, organize and carry out the different processes of an agricultural enterprise and to participate actively in preparing decisions and in operative tasks- They know the information and office technologies supporting agricultural processes.- They know the rules and ethical standards of participating and cooperating in project, team and the different forms of agricultural organizations.**b) Ability:**- It makes simpler professional reports, evaluations, databases, and performs.- Capable of making simple and agricultural cost calculations.- Capable of cooperating effectively with colleagues and leaders in solving project and work tasks.**c) Attitude:** - It is receptive to receiving new information, professional knowledge and methodologies.- They accept criticism and support of leaders and colleagues.- They develop constantly his/her language competency, communication skill and keep up with the development of new communication technologies.**d) Autonomy and responsibility:**- Take responsibility for his/her own work and decisions.- It performs job assignment independently, prepares own professional reports, create small queries and reports independently. If needed, it will be required to work with a staff member or a manager. |

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| **Course leader** (name, post, academic degree): **Dr. László Várallyai** |
| **Other lecturer(s) involved in teaching the course, if any** (name, post, academic degree): **-** |